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JPL Section Report No. 610-7)

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THE JET PROPULSION LABORATORY

PATENT OFFICE QUARTERLY

BULLETIN,

[6]

October 1, 1961 through December 31, 1961

JET PROPULSION LABORATORY

California Institute of Technology
Pasadena, California

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FOREWORD

This report is a continuation of a series of quarterly reports starting with Section Report No. 60-3 dated October 15, 1956.

In the past this report has served the purpose of reporting all possibly inventive matters which have come to the attention of the JPL Patent Group. This information will continue to be reported as before with the additional information relating to ultimate patent applications on certain selected matters which are authorized by both the National Aeronautics and Space Administration and the California Institute of Technology Research Foundation, including information on requests for waivers by the latter in those instances where the Research Foundation elects to retain rights.

This report covers the period October 1 to December 31, 1961.

Additional information on matters reported herein may be had by contacting Leonard S. Sauer of the JPL Patent Office, ext. 2391.

QUARTERLY REPORT OF INVENTION DEVELOPMENT
AT THE JET PROPULSION LABORATORY

CASE NO.*	INVENTOR(S)	SUBJECT OF INVENTION	STATUS
265	L. Piasecki H. Marsh C. Funk	Dual solid-grain hybrid engine	Invention Record filed 9-27-60
269	C. S. Lewis	Means for fabricating fric- tion surface	Notice of Invention filed 10-7-60
271	D. H. Lee W. W. Smith D. D. Evans	Heated-hybrid gas generation system	Invention Record filed 10-27-60
284	R. E. Frazer	Microwave amplifier	Notice of Invention filed 1-12-61
294	H. H. Gernandt	Seals for universal ball valve	Notice of Invention filed 2-2-61
302	D. P. Kohorst	Close-tolerance machining process for thin-gauge metals	Invention Record filed 3-3-61
305	J. V. Miller	Extendable tower or boom	Invention Record filed 3-21-61
307	J. N. Wilson	Rocket-motor vector con- trol	Invention Record filed 3-31-61
309	R. S. Weiner R. N. Porter	Redundant sealing valve for remote-couplings	Invention Record filed 4-10-61

*Represents the order in which inventions have been received by the JPL Patent Office. Subject inventions are dropped from this list when invention reports are published, or when material is found to be unpatentable or to have been anticipated.

CASE NO.	INVENTOR(S)	SUBJECT OF INVENTION	STATUS
315	H. Erpenbach	Sphere rotating device	Invention Report 30-57 completed
324	L. S. Sauer	An exhaust nozzle having a variable expansion area	Notice of Invention filed 6-19-61
326	R. N. Porter	Liquid-propellant feed system	Notice of Invention filed 6-20-61
327	R. N. Porter	Liquid-propellant feed system	Notice of Invention filed 6-20-61
329	R. N. Porter	Self-pressurizing gas generator system	Notice of Invention filed 6-20-61
333	M. B. Gram	Measurements of low emittances	Notice of Invention filed 7-11-61
334	R. Goldstein	A technique for processing data	Invention Report 30-96 completed
335	C. H. Lewis	Measuring device	Invention Record filed 7-12-61
340	W. F. Krieve	Charge collection for fis- sion devices	Invention Report 30-103 completed
346	W. F. Krieve	Gas-filled fission-electric cell	Invention Report 30-107 completed
347	W. F. Krieve	High-voltage insulator	Invention Report 30-104 completed

CASE NO.	INVENTOR(S)	SUBJECT OF INVENTION	STATUS
348	D. H. Lee	Dual propellant tank pressurization and liquid outlet fitting for bladdered tanks	Invention Record filed 8-4-61
352	D. D. Evans D. H. Lee	Chemical ignition method for monopropellant hydra- zine decomposition devices	Invention Record filed 8-11-61
355	W. F. Krieve	Fuel elements for fission- electric cell reactor	Notice of Invention filed 7-24-61
357	A. G. Ford	Electrically operated shutter	Notice of Invention filed 8-28-61
358	C. J. Finnie D. Schuster	Ultra stable, high-precision radio frequency insertion loss test set	Invention Record filed 9-11-61
359	J. V. Miller R. M. Beckwith	Arc lamp projection system	Invention Record filed 9-15-61
361	W. F. MacGlashan	All-metal line valve	Invention Report 30-97 completed
363	Dr. J. H. Laub	Pneumatic logic element	Invention Record filed 9-19-61
364	A. F. Hildebrandt	Superconductivity piston for plasma compression and heating and conversion of plasma energy into mechan- ical energy	Invention Record filed 10-6-61
365	D. D. Elleman A. F. Hildebrandt	Superconducting zero-field device	Invention Report 30-98 completed

CASE NO.	INVENTOR(S)	SUBJECT OF INVENTION	STATUS
366	A. F. Hildebrandt D. D. Elleman F. C. Whitmore R. A. Simpkins	Mutiple-stage magnetic field compressor	Invention Report 30-99 completed
367	D. D. Elleman A. F. Hildebrandt	Superconducting flux pump	Invention Report 30-100 completed
368	A. F. Hildebrandt D. D. Elleman F. C. Whitmore	Device for trapping large-magnetic-field superconductors without dewar	Invention Report 30-101 completed
369	J. G. Small	Visual display of an interplanetary firing problem	Invention Report 30-98 completed
371	J. D. Acord	Hydraulic antenna	Invention Notice filed 10-3-61
372	N. L. Fox	Antenna structure	Invention Report 30-109 completed
373	W. F. MacGlashan	High pressure sterilization filter cartridge	Invention Report 30-95 completed
374	A. F. Hildebrandt	Production of very pure helium by flow of superfluid through a very fine sieve	Invention Record filed 11-3-61
375	R. M. Bamford	Single element elastic universal joint	Invention Report 30-105 completed
376	A. F. Hildebrandt	Superconductor magnetic charging	Invention Record filed 11-16-61
377	A. F. Hildebrandt	Magnetic propulsion system	Invention Record filed 11-16-61

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CASE NO.	INVENTOR(S)	SUBJECT OF INVENTION	STATUS
378	A. F. Hildebrandt	Low temperature refrigerator	Invention Record filed 11-16-61
379	P. J. Shlichta	Contracting-column gas chromatography	Invention Record filed 12-12-61
380	P. J. Shlichta	Continuous-flow gas chromatography	Invention Record filed 12-12-61
381	A. F. Hildebrandt H. Wahlquist	Production of uniform fields using super-conductors	Invention Report 30-108 completed
382	M. Easterling	Ranging receiver	Invention Report 30-106 completed
383	G. S. Perkins H. Vivian	Thrust-measuring instrument	Notice of Invention filed 12-21-61
384	G. S. Perkins	Tube joint and cutting tool	Notice of Invention filed 12-21-61
385	D. Rubin	Veitch-diagram plotter	Invention Record filed 12-27-61
386	F. S. Singer	Vehicle-attitude control	Notice of Invention filed 11-30-61

PATENT APPLICATIONS AUTHORIZED BY THE NATIONAL
AERONAUTICS AND SPACE ADMINISTRATION

INVENTION REPORT NO.	TITLE	INVENTOR(S)	AUTHORIZA- TION DATE	DATE FILED
30-4	Miniature Servo Accelerometer	A. R. Johnston	6-9-60	1-20-61
30-8	High-Pressure Four-Way Valve	W. F. MacGlashan H. J. Margraf	10-10-60	1-5-61
30-9	Apparatus and Method for Control of a Solid-Fueled Rocket Vehicle	W. Gin L. Piasecki G. Robillard	7-20-60	11-4-60
30-17	Steering System for Solid Propellant Motors	C. W. Raggio	8-15-61	10-13-61
30-18	Piezoelectric Crystal Microphone	W. Chen S. Wheeler	10-10-61	In preparation
30-19	Elastic Orifice for Gas-Lubricated Bearings	J. Laub F. Batsch	10-17-60	4-5-61
30-20	Ignition System for Monopropellant Devices	J. J. Chilenski	7-20-60	11-4-60
30-21	Binary-to-Binary Coded Decimal Converter	E. H. Imlay	6-16-61	7-26-61
30-24	An Oil-Damped Gas Operated Actuator	F. E. Loop	3-9-61	1-5-61
30-25	Pulse-Type Actuator for Attitude Control	F. Batsch J. Laub F. Mitchell	7-20-60	1-18-61
30-26	Vortex-Tube-Type Rocket Propulsion System	R. Meghreblian	4-28-60	Cancelled

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INVENTION REPORT NO.	TITLE	INVENTOR(S)	AUTHORIZA- TION DATE	DATE FILED
30-30	Elastic Universal Joint	E. Chow R. Bamford	10-10-61	In preparation
30-37	An Improved Regulator and Its Application in a High-Pressure System	O. F. Keller W. F. MacGlashan	9-25-61	In preparation
30-39	A Stabilized Coaxial	L. J. Derr	5-17-61	6-13-61
30-41	A Bipolar Logarithmic Current-To-Voltage Transducer	C. Josias	10-3-61	In preparation
30-45	A Time Division Multiplexer	J. F. Meyer	8-18-61	9-22-61
30-48	Breakaway Actuator Assembly for Missile Umbilicals	A. K. Forsythe	9-25-61	In preparation
30-51	Improved Parametric Amplifier	C. T. Stelzried B. Clauss	6-6-61	10-13-61
30-53	Solar Radiation Simulation	M. N. Wilson, Jr. C. Thiele	4-11-61	In preparation
30-55	Low Noise, Fast Ordered Analogue to Digital Converter	L. L. Lewyn	9-20-61	In preparation
30-62	Solid-State Maser	W. Higa	9-20-61	In preparation
30-67	A Technique of Even Deposition of Thin Films on Substrates	H. Erpenbach	9-20-61	In preparation

WAIVERS REQUESTED BY CALTECH RESEARCH FOUNDATION

INVENTION REPORT NO.	TITLE	INVENTOR(S)	WAIVER APPLIED FOR	ACTION TAKEN
30-4	Miniature Servo Accelerometer	A. Johnston	1-5-61	Accepted 6-20-61
30-15	Portable Planetarium	H. R. Baerg E. L. Weckbaugh	10-27-60	Accepted 9-6-61
30-19	Elastic Orifice for Gas-Lubricated Bearings	J. Laub	6-6-61	Denied 9-15-61
30-39	A Stabilized Coaxial Cavity Amplifier	L. J. Derr	4-12-61	Denied 5-18-61
30-47	Method for Mounting Terminals in Circuit Boards	J. V. Miller	4-12-61	Pending
30-98	Magnetic Flux Pump	D. D. Elleman A. F. Hildebrandt F. C. Whitmore	11-29-61	Pending
30-99	Continuous Magnetic Flux Pump	A. F. Hildebrandt D. D. Elleman F. C. Whitmore R. A. Simpkins	11-29-61	Pending
30-100	Magnetic Flux Pump	D. D. Elleman A. F. Hildebrandt	11-29-61	Pending
30-101	Magnetic Field Trapping Device	A. F. Hildebrandt D. D. Elleman F. C. Whitmore	11-29-61	Pending